

A New Species of the Lamellibranch Genus *Aligena* from Western Canada

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(Plate 20)

THE WEST AMERICAN REPRESENTATIVES of the Leptonid genus *Aligena* were reviewed by BURCH (*Nautilus* 55: 48-51) in 1941. At that time he described *Aligena redondoensis*. This was the fourth described West American species and the only one known to occur north of Baja California. It is reported from the regions off La Jolla, off Santa Rosa Island and from the submarine canyon off Redondo Beach, Calif.

On May 18, 1963, I and others were dredging in the northern parts of the Strait of Georgia, Johnston Strait and adjacent waters. At Cowan Station 724, 49° 15' north and 124° 15' west in 190 fathoms we took a number of specimens of a Leptonid new to me. I am indebted to Dr. Myra Keen of Stanford University for assistance with the identification, for suggestions as to the systematic affinities and for critical reading of this manuscript. The specimens secured represent an undescribed species that approaches the genus *Aligena* more closely than it does other described genera. It differs significantly from all other members of the genus in the consistent possession of a prominent lateral tooth. In as much as inclusion of the new species in *Aligena* will necessitate some revision in the generic diagnosis, the question arises as to whether the creation of a new genus would not best describe the situation. In a less variable family this would probably be the action of choice. In the present instance, however, it has been decided to leave final decision on this to a future reviser of the family. However, a new subgenus under *Aligena* is required to express the apparent relationships among the 6 species.

I propose the name *Odontogena* with the type species *Aligena (Odontogena) borealis* Cowan.

Diagnosis: Differs from *Aligena (Aligena)* primarily in having a well developed posterior lateral tooth on each valve. The detailed description, type locality and other details are given below in the species description.

The new species was collected in a Naturalist dredge with $\frac{1}{8}$ inch nylon liner in the net. The substrate consisted of very soft, fine-textured muddy silt. Its faunal

associates were *Yoldia martyria*, *Cardiomya planetica*, and *Pandora filosa*. The new species must be very local in its distribution as several hundred dredge hauls in the Strait of Georgia have failed to reveal it. Six hauls were made in the general vicinity of the type locality yet the species was taken only in the one place.

Aligena (Odontogena) borealis COWAN sp. nov.

Type locality: The northern part of Georgia Strait, British Columbia, Canada, at 49° 15' North latitude and 124° 15' West longitude. Depth 190 fathoms at Cowan Station 724.

Type specimens: The holotype has been deposited in the Stanford University Paleontology Type Collection as No. 9739 along with paratypes 9740-9741; paratype 4762 D is in the United States National Museum; 4762 E in the Museum of Comparative Zoology, Harvard University; 4762 F in the National Museum of Canada; 4762 G in the British Museum of Natural History; 4762 H in the California Academy of Sciences. The remaining 7 specimens of the paratype series of 4762 are in the Cowan collection.

Description: The details given describe the entire series, not merely the holotype. A small almost circular shell with a mean length of 2.50 mm, mean height of 2.31 mm, and mean ratio of height to length of 0.92. Moderately inflated, ratio length to thickness 0.58. Almost symmetrical, beaks central, prominent and bent forward to leave a well developed depression in front of and beneath the beaks. This is not, however, differentiated as a lunule.

Anterior margin curving in an even arc into the ventral margin. Dorso-posterior margin curved but inclining downwards at an angle of about 45 degrees from the plane of the anterior dorsal outline. Posterior margin with a small central prominence.

Shell pale yellowish, possibly as a stain from the heavy and complete coating of mud that adhered to every specimen. This flaked off easily when dry. Sculpture of incremental lines only (Figure 1). Hinge internal, behind

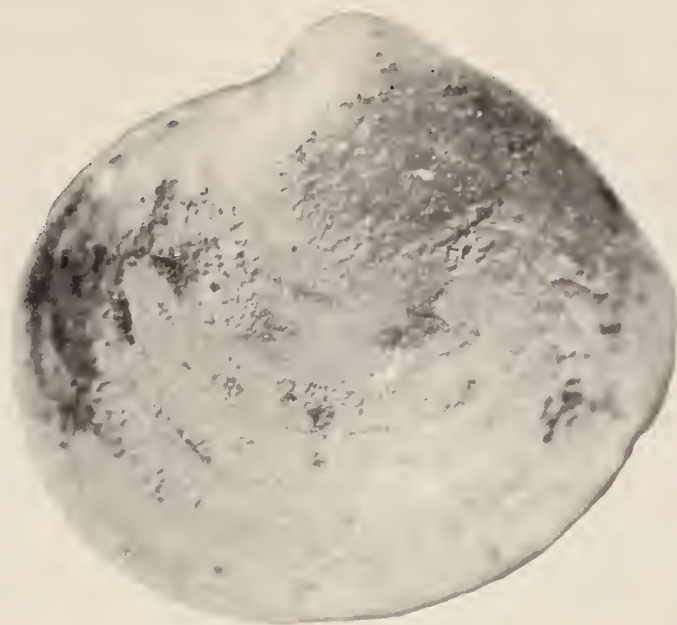


Figure 1: View of entire shell from left aspect.

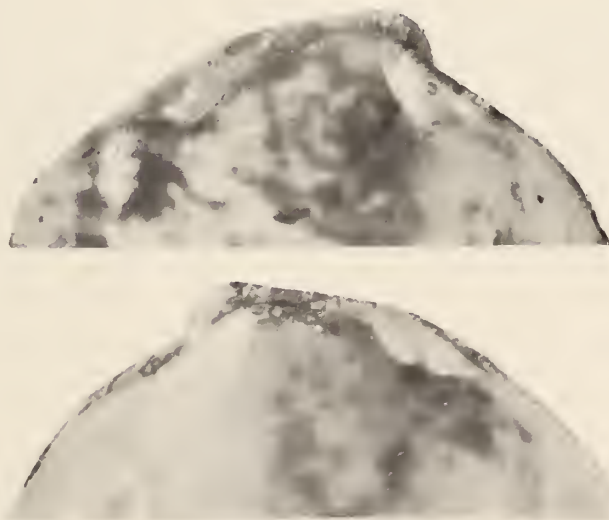


Figure 2: Upper - dentition of left valve.
Lower - dentition of right valve.